

REMARKS/ARGUMENTS

Applicants gratefully acknowledge the Examiner's indication of allowable subject matter in claims 15 and 16. In this Amendment, Applicants have rewritten dependent claim 15 in independent form as new claim 25 and have added new claim 26, which depends from claim 25 and correlates to allowable claim 16. Additionally, Applicants have added new dependent claims 27-39, which correlate to dependent claims 2-14. Applicants respectfully submit that new independent claim 25, and new claims 26-39 which depend therefrom, are now allowable.

Further in this Amendment, Applicants have amended claim 1 to more particularly claim Applicants' invention. In amended claim 1, Applicants claim that the air bag is housed in a roof frame at a top of a front windshield and unfolds in a direction of travel from a front of the car to a rear of the car. As is also claimed, after the air bag unfolds, the air bag is located above a head of a driver and/or a passenger. Applicants respectfully submit that none of the references to Lohavanijaya, Kithil, and Mumura et al. disclose all of these features of Applicants' invention.

In Lohavanijaya, Applicants respectfully submit that there is no disclosure related to the claimed feature where, after the airbag unfolds, the air bag is located above a head of a driver and/or a passenger. As can be clearly seen in Figure 4 of the reference and as described at col. 3, lines 3-11, in the inflated condition, the bladder 32 extends across the upper portion 20 of the windshield

14 and between the A pillars 16 and 18. As such, the bladder helps protect the occupant 30 “from an impact with the upper portion 20 of the windshield 14.” Similarly, air bags 46 and 56, in their inflated position, “extend adjacent to the lower portion 24 of the windshield 14.” Therefore, Applicants respectfully submit that Lohavanijaya does not disclose the claimed feature of Applicants’ invention where, after the airbag unfolds, the air bag is located above a head of a driver and/or a passenger, as can be clearly seen in Applicants’ application at least in Figure 2.

Applicants also respectfully submit that the reference to Kithil does not at least disclose this same claimed feature of Applicants’ invention. As can be seen in Figures 4, 5, and 6, and at col. 7, lines 39-46, of Kithil, the air bag 20, upon inflation, forms a forward chamber 66 “which inflates downward with its forward surface 68 extending downward along windshield 28, and a rear chamber 70.” (emphasis added). Therefore, Applicants respectfully submit that Kithil does not disclose the claimed feature of Applicants’ invention where, after the airbag unfolds, the air bag is located above a head of a driver and/or a passenger.

Lastly, Applicants respectfully submit that the reference to Mumura et al. does not at least disclose the claimed feature of Applicants’ invention of the air bag housed in a roof frame of the car at a top of a front windshield and, when the air bag is actuated, it unfolds in a direction of travel from a front of the car to a rear of the car such that it is located above the head of the driver and/or passenger. In Applicants’ invention, the air bag is positioned as claimed to

protect the driver and/or passenger in the event of a rollover. Therefore, it is desirable that the air bag be located in the front of the car, i.e., adjacent the driver, and, therefore, unfold from the front of the car to the rear of the car above the driver's head.

In Mumura, there is no disclosure related to housing the air bag at a front of the car and inflating the air bag such that it unfolds, when actuated, from the front of the car to the rear of the car. In fact, Mumura discloses a contrary teaching. In Mumura, the primary purpose of the air bag is not to protect the head of the driver. Rather, the air bag inflates when a rollover is detected to cover a sunroof opening to prevent luggage and the like in the vehicle compartment from being thrown out of the vehicle through the sunroof opening. See col. 5, lines 62-67. As such, the airbag, as disclosed at col. 5, lines 3-5, is disposed adjacent to and in the rear of the opening portion 20 of the ceiling interior member 18. Additionally, when the air bag is actuated, as can be seen in Figure 5 and as disclosed at col. 6, lines 10-18, the gas first inflates the expansion-inducing inflatable portion 40A and then inflates the inflatable chambers 40B and 40C. Thus, the air bag 30 “expands in the forward direction of the vehicle preferentially starting with its vehicle transverse opposite end portions.” (emphasis added). As disclosed in Mumura, because the purpose of Mumura is to close the sunroof opening to prevent luggage from being thrown out of the vehicle through the sunroof opening portion, as a consequence of the positioning and inflation sequence of the air bag, “the air bag 30 expands

smoothly, and it is possible to shorten the time required for completing the expansion of the air bag.” See col. 6, lines 16-18.

Therefore, Applicants respectfully submit that Mumura does not disclose the features of Applicants’ invention of housing the air bag at a front of the car and inflating the air bag such that it unfolds, when actuated, from the front of the car to the rear of the car. Applicants’ air bag is positioned and inflates as claimed in order to protect the head of the driver and/or passenger. Mumura’s air bag is positioned and inflates as disclosed in order to expand and thus close a sunroof opening to prevent luggage from being thrown through the sunroof opening. Therefore, Applicants respectfully submit that amended claim 1 is allowable over the reference to Mumura.

Applicants respectfully traverse the Examiner’s objection to the drawings. 37 C.F.R. § 1.81(a) only requires an applicant for a patent to furnish a drawing of his or her invention where necessary for the understanding of the subject matter sought to be patented. Applicants respectfully submit that one of ordinary skill in the art would not find it necessary, for an understanding of the subject matter sought to be patented in claims 7 and 8, to show an air bag housed in a steering wheel in a drawing. Air bags have been known by one of ordinary skill in the art to be housed in steering wheels. In fact, Applicants’ specification at paragraph 0058 refers to such air bags as being “conventional.” Therefore, Applicants respectfully request that the Examiner withdraw the objection to the drawings.

Additionally, Applicants respectfully traverse the Examiner's rejection of claims 7 and 8 under 35 U.S.C. § 112, first paragraph. Applicants respectfully submit that the specification, at least at para. 0058, contains a written description of the invention claimed in claims 7 and 8 that would enable one of skill in the art to make and use the same. As claimed in claim 7, the air bag unfolds more slowly than an air bag housed in a steering wheel. As claimed in claim 8, the inflated state of the air bag is maintained longer than that of an air bag housed in a steering wheel. In the Office Action, the Examiner argues that the specification does not describe in detail about the relationship between the head protecting air bag in the roof and the air bag in the steering wheel. Therefore, the Examiner further argues that it is not known how the head protecting air bag is unfolded slower and maintained longer than that of the air bag in the steering wheel.

Applicants respectfully submit that it is not necessary to describe in detail about the physical relationship between the two air bags. The only relationship that is claimed is a functional relationship where one inflates slower than the other and one is maintained in an inflated condition longer than the other. As described in the specification at paragraph 0058, the head protecting air bag unfolds relatively slowly and maintains the inflated state for a relatively long period of time compared to a conventional air bag housed in a steering wheel. By definition, the functional characteristics of a "conventional" air bag are well-known to one of skill in the art. Applicants respectfully submit that one of skill

in the art, when reading the specification describing this functional relationship between the head protecting air bag and a conventional air bag, could make and use the air bags with the claimed relative functional relationship. Applicants have amended claims 7 and 8, and new claims 32 and 33 which correlate thereto, to more particularly claim the relative functional relationship between the head protecting air bag and the conventional air bag housed in the steering wheel. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 7 and 8 under 35 U.S.C. § 112, first paragraph.

Applicants respectfully request re-entry of withdrawn claims 13 and 14 in the application since they now depend from generic claim 1. Lastly in this Amendment, Applicants have canceled claims 17-24.

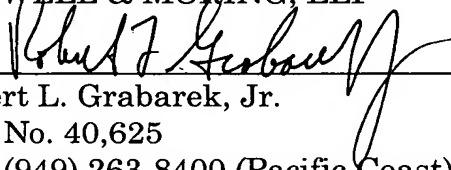
Applicants respectfully submit that the application is now in condition for allowance. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response. Please charge any such fee or any deficiency in fees, or credit any overpayment of fees, to Deposit Account No. 05-1323 (Docket 095309.50712US).

Respectfully submitted,

CROWELL & MORING, LLP

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By 
Robert L. Grabarek, Jr.
Reg. No. 40,625
Tel.: (949) 263-8400 (Pacific Coast)

Intellectual Property Group
P.O. Box 14300
Washington, D.C. 20044-4300